

METHOD, APPARATUS, AND COMPUTER PROGRAM PRODUCT FOR RADAR CROSSRANGE SUPERRESOLUTION

ABSTRACT OF THE DISCLOSURE

Methods, apparatus, and computer program products are provided for improving the crossrange resolution of a radar device for more accurate determinations of angular position of a target. The radar device transmits and receives scanning signals at crossrange beam positions having a beamwidth, wherein the beam positions are separated by a step. The radar device scans a target to receive target data from at least three beam positions, typically consecutive beam positions, to determine a first beam position with a first target data value that is greater than a second target data value of a second beam position preceding the first beam position and greater than a third target data value of a third beam position following the first beam position. A target data relationship between the first, second, and third beam positions is determined to provide the angular position of the target relative to the first beam position.

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